REMARKS

Claims 1-16 have been examined on their merits, and are all the claims presently pending in the application.

1. Claims 1-4 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Lee (U.S. Patent No. 6,122,283). Applicants respectfully traverse the rejection of claims 1-4 at least for the reasons set forth below.

To support a conclusion that a claimed invention lacks novelty under 35 U.S.C. § 102, a single source must teach all of the elements of a claim. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379 (Fed. Cir. 1986). A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). A single source must disclose all of the claimed elements arranged as in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the cited reference must clearly and unequivocally disclose every element and limitation of the claimed invention.

Lee discloses, *inter alia*, a method for "providing a topology representation in the form of lossless compressed aggregation of non-redundant optimal paths through an interconnected group of switching nodes and communication links that define a peer group." *See* col. 4, lines 6-9 of Lee. Lee's method initiates an "iterative process in an ordered fashion toward attaining the optimal paths between the border vertices." *See* col. 4, line 66 to col. 5, line 1 of Lee. As each optimal path is

determined, the method segregates that path into a first or second category, and when the processing is completed, the saved paths in the first category are used to define the edges that are combined to provide a lossless compressed topology aggregation representing the peer group topology spanning the border vertices. *See* col. 5, lines 2-7 of Lee.

Lee fails to teach or suggest performing routing calculations for a network with interconnecting nodes, wherein at least one of the links interconnecting the nodes uses signal compression, as recited in claim 1. Lee discloses a method for analyzing a mesh network such that redundant paths are eliminated, thereby permitting the *compression of the network topology*. *See* col. 5, lines 2-7 of Lee. Lee lacks any teaching or suggestion that the compressed network topology uses signal compression on any of the links interconnecting the nodes, and further lacks any teaching or suggestion that the compressed links are factored into the compression of the network topology. The Examiner appears to be confusing the compression of *an entire network*, as disclosed by Lee, with a routing calculation that factors in if *signal compression* is present on individual links when the routing calculation is being performed, as recited in claim 1. Critically, the Examiner has not cited any passage in Lee that describes the links interconnecting the network nodes as having signal compression, nor has the Examiner cited in any passage in Lee that describes a network having both links that use signal compression and links that do not use signal compression. Moreover, the fact that Lee uses a Dijkstra methodology or a Floyd-Warshall methodology for compression is immaterial. Lee uses those methodologies *to compress a network topology*, and not to perform a routing calculation involving network links without signal compression, as well as network links with signal compression. Applicants believe that Lee clearly does not anticipate invention recited

in claim 1. Thus, Applicants believe that claim 1 is allowable, and further believe that claims 2-4 are allowable as well, at least by virtue of their dependency from claim 1.

If the Examiner still asserts that Lee discloses performing routing calculations based on the number of signal compressions, Applicants request that the Examiner identify those portions of Lee's disclosure in the next Office Action that teach or suggest such a routing calculation.

2. Claims 5-16 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Lee in view of Gittins et al. (U.S. Patent No. 6,638,363). Applicants respectfully traverse the rejection of claims 5-16 at least for the reasons set forth below.

The initial burden of establishing that a claimed invention is *prima facie* obvious rests on the USPTO. *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). To make its *prima facie* case of obviousness, the USPTO must satisfy three requirements:

1. The prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated to artisan to modify a reference or to combine references. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988).
2. The proposed modification of the prior art must have had a reasonable expectation of success, and that determined from the vantage point of the artisan at the time the invention was made. *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209 (Fed. Cir. 1991).
3. The prior art reference or combination of references must teach or suggest all the limitations

of the claims. *In re Vaeck*, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991); *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, the nature of a problem to be solved. *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). Alternatively, the motivation may be implicit from the prior art as a whole, rather than expressly stated. *Id.* Regardless if the USPTO relies on an express or an implicit showing of motivation, the USPTO is obligated to provide particular findings related to its conclusion, and those findings must be clear and particular. *Id.* A broad conclusionary statement, standing alone without support, is not "evidence." *Id.; see also, In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001).

In addition, a rejection cannot be predicated on the mere identification of individual components of claimed limitations. *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000). Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Id.*

With respect to claims 5-9, the Examiner acknowledges that Lee fails to teach or suggest a network that comprises overflow links to an external network, a cost function representative of the cost of overflows and routing calculations that are effected for a given number of overflows by varying the number of compressions. The Examiner further acknowledges that Lee fails to teach or suggest a cost function that accounts for occupancy of the network and charges incurred because of overflow in the network. *See* March 13, 2003 Office Action, numbered paragraph 4, pages 3-4.

The Examiner cites Gittins et al. as allegedly providing the necessary teaching to overcome the acknowledged deficiencies of Lee. *See* March 13, 2003 Office Action, numbered paragraph 4, page 4.

Claims 5-9 depend from claim 1, and include all the recitations of claim 1 by virtue of their dependency from claim 1.

With respect to Gittins et al., Applicants agree with the Examiner that Gittins et al. disclose means for connecting to an alternative network. *See* Fig. 4, col. 11, lines 61-67 of Gittins et al. Applicants strenuously disagree with the Examiner that the conversion of signaling data, the analysis of data to be transmitted and multiplexing somehow constitute the calculation of overflow routing as recited in claim 5. *See* claims 34 and 35 of Gittins et al. Contrary to the Examiner's assertion, there is nothing in claims 34 and 35 of Gittins et al. that even remotely teaches that "routing calculations are directly effected for a given number of overflows by varying the number of [sic] compression and then varying the number of overflows since if the capacity is exceed by means of compression, the overflow link will have to carry the additional load" as asserted by the Examiner. *See* March 13, 2003 Office Action, numbered paragraph 4, page 4. Claim 34 describes the structure illustrated in Figure 5 of Gittins et al., and the accompanying text is silent with respect to the varying of the number of signal compressions and varying the number of overflows to determine if an overflow link is needed. *See* col. 11, line 34 to col. 12, line 19 of Gittins et al. As the entire specification of Gittins et al. makes clear, any data compression is performed prior to the injection of the data into the network, and data is only decompressed at its destination. *See* col. 2, line 39-44; col. 13, lines 48-56; col. 15, lines 62-67 of Gittins et al.

The combination of Lee and Gittins et al. fails to teach or suggest the performance of routing calculations for a network with interconnecting nodes, wherein at least one of the links interconnecting the nodes uses signal compression, as recited in claim 1 and included via dependency in claims 5-9. The combination of Lee and Gittins et al. does not take into account the number of links within a network that utilize signal compression when performing an overflow calculation. At best, the combination of Lee and Gittins et al. discloses how to reduce the number of nodes within a network, in conjunction with the type of devices to be used at those nodes. In terms of compression, the combination of Lee and Gittins et al. uses compression for reducing a particular network topology (*see* col. 4, line 66 to col. 5, line 1 of Lee), or to indicate that data injected into a network has been compressed prior to its injection. *See* col. 2, line 39-44; col. 13, lines 48-56; col. 15, lines 62-67 of Gittins et al. There is no teaching or suggestion in the combination of Lee and Gittins et al. that the number of links in a network that use signal compression is factored into a routing calculation (as recited in claim 1), or that the number of those links are factored in to an overflow calculation, as recited in claims 5-9. Applicants believe that the Examiner has not met the "all limitations" prong of a *prima facie* case of obviousness, as required by *In re Vaeck.*

With respect to motivation, neither Lee nor Gittins et al. teaches or suggest a routing calculation or an overflow calculation that is based upon the number of links in a network that use signal compression. As discussed above, Lee is directed to the reduction of the number of nodes within a network by removal of redundant pathways. Lee lacks any teaching or suggestion of basing such a reduction on the number of links in the network that use signal compression. Gittins et al.

discusses compression of the date at the injection point in a network, and the decompression of data at the destination point in the network. Gittins et al. lack any discussion of a routing calculation or an overflow calculation that is based upon the number of links in the network that use signal compression. Since neither reference discusses these features of the invention, under *In re Dembiczak* and *In re Kotzab*, there cannot be any motivation to combine Lee and Gittins et al. Applicants believe that the Examiner has not the motivation prong of a *prima facie* case of obviousness as well.

Thus, Applicants believe that claims 5-9 are allowable over the combination of Lee and Gittins et al.

If the Examiner still asserts that the combination of Lee and Gittins et al. disclose performing overflow calculations based on the number of links using signal compression and the number of overflows, Applicants request that the Examiner identify those portions of Lee and/or Gittin et al.'s disclosures in the next Office Action that teach or suggest such an overflow calculation.

With respect to claims 10-12, the Examiner acknowledges that Lee fails to teach or suggest performing a first routing calculation with no compressions. *See* March 13, 2003 Office Action, numbered paragraph 4, page 5. The Examiner cites Gittins et al. as allegedly providing the necessary teaching to overcome the acknowledged deficiencies of Lee. *See* March 13, 2003 Office Action, numbered paragraph 4, pages 5-6.

The combination of Lee and Gittins et al. fails to teach or suggest the performance of routing calculations for a network with interconnecting nodes, wherein at least one of the links interconnecting the nodes uses signal compression, as recited in claim 10. The combination of Lee and Gittins et al. does not take into account the number of links within a network that utilize signal compression when performing routing calculation. At best, the combination of Lee and Gittins et al. discloses how to reduce the number of nodes within a network, in conjunction with the type of devices to be used at those nodes. In terms of compression, the combination of Lee and Gittins et al. uses compression for reducing a particular network topology (*see* col. 4, line 66 to col. 5, line 1 of Lee), or to indicate that data injected into a network has been compressed prior to its injection. *See* col. 2, line 39-44; col. 13, lines 48-56; col. 15, lines 62-67 of Gittins et al. There is no teaching or suggestion in the combination of Lee and Gittins et al. that the number of links in a network that use signal compression is factored into a routing calculation, as recited in claim 10. The fact that Lee fails to teach or suggest a first calculation that does not use compression is immaterial. The combination of Lee and Gittins et al. is utterly devoid of any teaching or suggestion of using the number of links having signal compressions as a factor when performing a routing calculation. Applicants believe that the Examiner has not met the "all limitations" prong of a *prima facie* case of obviousness, as required by *In re Vaeck.*

With respect to motivation, neither Lee nor Gittins et al. teaches or suggest a routing calculation that is based upon the number of links in a network that use signal compression. As discussed above, Lee is directed to the reduction of the number of nodes within a network by removal of redundant pathways. Lee lacks any teaching or suggestion of basing such a reduction

on the number of links in the network that use signal compression. Gittins et al. discusses compression of the date at the injection point in a network, and the decompression of data at the destination point in the network. Gittins et al. lack any discussion of a routing calculation that is based upon the number of links in the network that use signal compression. Since neither reference discusses this feature of the invention, under *In re Dembiczak* and *In re Kotzab*, there cannot be any motivation to combine Lee and Gittins et al. Applicants believe that the Examiner has not the motivation prong of a *prima facie* case of obviousness as well.

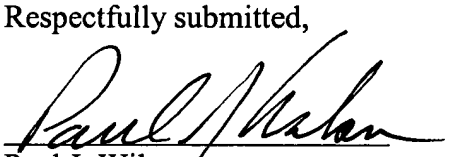
Thus, Applicants believe that claim 10 is allowable over the combination of Lee and Gittins et al., and further believe that claims 11-16 are allowable as well, at least by virtue of their dependency from claim 10.

If the Examiner still asserts that the combination of Lee and Gittins et al. disclose performing routing calculations based on the number links using signal compression, Applicants request that the Examiner identify those portions of Lee and/or Gittin et al.'s disclosures in the next Office Action that teach or suggest such routing calculation.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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